you, waving its wings in pleasure at your appearance, and gently unrolling its tongue as it walks along in anticipation of a sip of sweetened water; then it will climb upon you finger. . . . You must always approach the butterfly with gentle motions, with an absence of anything new or strange, or unexpected or unpleasant, when it is hungry and with food on your finger tips; and when you call it you must each time do so with the same motions and the same tone of voice. The females are more tractable and teachable than the males."

Section 25. *Length of a butterfly's life.* Notes on the duration of the imaginal stage in various butterfly groups; Graptas, Vanessas, Pyrameis (long-lived) Argynnis and Melitaea (a few weeks to two months), Satyridae (short-lived a week or so), and Chionobas iduna (ten days).

Section 27. *Rubbing the wings.* Author notes the curious habit of the Theclas and Lycaenas of rubbing the wings together while at rest. Author sees no explanation. [They are not improbably producing sound by rubbing special series of stiff upright scales together; I have referred to this phenomenon in an early paper on the scales of the Lepidoptera. V. L. K.]

Section 30. *Mimicry or simulation.* An interesting but rather peculiar section under this subject, including some excellent observations, but showing a curious lack of understanding, of the theory of protective resemblance and mimicry on the author's part. The author assumes that mimicry, where existent, is a *voluntarily* acquired condition of the mimicking or simulating species! Among the author's observations are the following: Most Satyridae alight "upon places concolorous with themselves." Chionobas gigas alights only on bare gray rock upon which gray moss and lichens grow. "When it alights on such a place you cannot distinguish it although you saw it alight only three yards away." . . . "During 25 years' butterfly work I have seen but one attempt of a bird to catch a butterfly; then it was a fly-catcher bird chasing a Colias, dashing after it many times until, tired out, it stopped and the Colias escaped."

Section 31. *Movement of butterflies.* By this title author means "the substitution of the abnormal female for the normal; the temporary or permanent disappearance of an entire species, and the unaccountable appearance of lost or unknown species; in fine, the change from one state of things to another state." Author notes the conditions of occurrence of pale females of Colias, the disappearance of the species Lycaena tequa in Southern California, the disappearance and reappearance of Lycaena xerxes near San Francisco, the becoming common of the former very rare Pampila melane, and the disappearance of Chionobas nevadensis, Satyrus wheeleri and Mechanitis californica.

Section 25. *Getting butterfly eggs for rearing.* Under this practical title author has some interesting biological notes on the egg-laying of butterflies. Parnassius, Argynnis, Euptoieta Neonympha, and all genera of Satyridae "will lay their eggs upon anything, even on the net itself if other matters, as proper shade, warmth, air and quiet, are agreeable." All other butterflies demand their own peculiar larval food plant, "and it is necessary that the plant should be fresh and bright, as the butterfly will not oviposit on a plant that is at all wilted."

Section 37. *Breeding in darkness and in cold.* "When caterpillars are bred or raised in darkness from egg to imago, the resulting imago will be darker in color than the normal; the dark spots or lines will be broader and more dense or dusky and the lighter ones will be sordid or dusky. But no excessive variation or deviation from the plan of the normal form has ever been noticed, for the effort has many and many times been made to create new forms by this method." So also by cold. Caterpillars raised in an ice house or in cold storage where the temperature is kept down as low as possible will never develop any radical variation, but the butterflies will be darker than they would have been if raised in a normal temperature.

Section 38. *Migration of butterflies.* Describes large swarms or flights of Pyrameis cardui, not always in the same direction, but generally to the northward. Some came from Baja California and reached British Columbia!

Large Butterfly Captured by Crab-spider.— On the 13th of August, 1905, a swallow tail butterfly (*Papilio troilus* L.) was found lying dead by the side of the Amboy Road at Tottenville, Staten Island. Clinging to the body of the butterfly under one of its wings, was a small whitish crab-spider 7 mm. long, such as is often found on flowers awaiting its insect prey. Evidently the large butterfly had been attacked by the small spider, and had flown away with it, only to die later by the side of the road. There were no flowers near and the butterfly must necessarily have flown some distance before being overcome.

The spider has been shown to Mr. J. H. Emerton, who says it is *Misumena aleatoria*; a species commonly found on the blossoms of wild carrot and thoroughwort where it sits between the flowers and catches butterflies and other insects that alight on them. He adds: — "A butterfly a little too large might easily carry a spider away as yours appears to have done."— Wm. T. Davis.